

```
#####
#
#(R) Given n, compute a(n) by taking into account
# the binary representation of n
#
#####
# http://oeis.org/A054429
#
maxblock <- 7 # by choice
a <- 1
for(n in 2:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  anbit[0:(length(anbit) - 1)] <- 1 - anbit[0:(length(anbit) - 1)]
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A054429 <- a
#
# http://oeis.org/A065190
#
maxblock <- 7 # by choice
a <- 1
for(n in 2:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  anbit[1] <- 1 - anbit[1]
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A065190 <- a
#
# http://oeis.org/A063946
#
maxblock <- 7 # by choice
a <- 1
for(n in 2:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  anbit[(length(anbit) - 1)] <- 1 - anbit[(length(anbit) - 1)]
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A063946 <- a
#
#####
# http://oeis.org/A059893
#
maxblock <- 7 # by choice
a <- 1
for(n in 2:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  anbit[1:(length(anbit) - 1)] <- anbit[rev(1:(length(anbit)-1))]
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A059893 <- a
#
# http://oeis.org/A059894
#
maxblock <- 7 # by choice
a <- 1
for(n in 2:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  anbit[1:(length(anbit)-1)] <- 1 - anbit[rev(1:(length(anbit)-1))]
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A059894 <- a
#
#####
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```
#####
#
# http://oeis.org/A258996 # Mar 30 13:49
#
maxblock <- 7 # by choice
a <- 1:3
for(n in 4:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  anbit[seq(2, length(anbit) - 1, 2)] <- 1 - anbit[seq(2, length(anbit) - 1, 2)]
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A258996 <- a
#
# https://oeis.org/A332769 # = A054429[A258996] # Mar 30 13:49
#
maxblock <- 7 # by choice
a <- c(1, 3, 2)
for(n in 4:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  anbit[seq(1, length(anbit) - 1, 2)] <- 1 - anbit[seq(1, length(anbit) - 1, 2)]
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A332769 <- a
#
# http://oeis.org/A284447 # Mar 30 13:50
#
maxblock <- 7 # by choice
a <- 1:7
for(n in 8:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  anbit[seq(3, length(anbit) - 1, 2)] <- 1 - anbit[seq(3, length(anbit) - 1, 2)]
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A284447 <- a
#
# https://oeis.org/A231551
#
maxblock <- 7 # by choice
a <- 1:3
for(n in 4:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  for(i in 2:(length(anbit) - 1))
    anbit[i] <- bitwXor(anbit[i], anbit[i-1]) # ?bitwXor
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
#
# https://oeis.org/A153154
#
maxblock <- 7 # by choice
a <- c(1, 2, 3)
for(n in 4:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  for(i in 2:(length(anbit) - 1))
    anbit[i] <- bitwXor(anbit[i], anbit[i-1]) # ?bitwXor
  anbit[0:(length(anbit) - 1)] <- 1 - anbit[0:(length(anbit) - 1)]
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A153154 <- a
#
# http://oeis.org/A284459
#
maxblock <- 7 # by choice
a <- 1:3
for(n in 4:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  for(i in 2:(length(anbit) - 1))
    anbit[i] <- 1 - bitwXor(anbit[i], anbit[i-1]) # anbit[i] <- bitwXor(1 - anbit[i], anbit[i-1])
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A284459 <- a
#
# https://oeis.org/A154437
#
maxblock <- 7 # by choice
a <- c(1, 3, 2)
for(n in 4:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  for(i in 2:(length(anbit) - 1))
    anbit[i] <- 1 - bitwXor(anbit[i], anbit[i-1]) # anbit[i] <- bitwXor(1 - anbit[i], anbit[i-1])
  anbit[0:(length(anbit) - 1)] <- 1 - anbit[0:(length(anbit) - 1)]
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A154437 <- a
#
#####
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#####
#
# http://oeis.org/A258746
#
maxblock <- 7 # by choice
a <- 1:3
for(n in 4:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  ifelse(floor(log2(n)) %% 2 == 0,
    anbit[seq(1, length(anbit) - 1, 2)] <- 1 - anbit[seq(1, length(anbit) - 1, 2)],
    anbit[seq(2, length(anbit) - 1, 2)] <- 1 - anbit[seq(2, length(anbit) - 1, 2)])
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A258746 <- a
#
# http://oeis.org/A165199 # = A054429 (A258746)
#
maxblock <- 7 # by choice
a <- c(1, 3, 2)
for(n in 4:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  ifelse(floor(log2(n)) %% 2 == 0,
    anbit[seq(2, length(anbit) - 1, 2)] <- 1 - anbit[seq(2, length(anbit) - 1, 2)],
    anbit[seq(1, length(anbit) - 1, 2)] <- 1 - anbit[seq(1, length(anbit) - 1, 2)])
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A165199 <- a
#
# https://oeis.org/A284120
#
maxblock <- 7 # by choice
a <- 1:7
for(n in 8:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  ifelse(floor(log2(n)) %% 2 == 0,
    anbit[seq(2, length(anbit) - 3, 2)] <- 1 - anbit[seq(2, length(anbit) - 3, 2)],
    anbit[seq(1, length(anbit) - 3, 2)] <- 1 - anbit[seq(1, length(anbit) - 3, 2)])
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A284120 <- a
#
# http://oeis.org/A233279 # = A054429 (A006068(n))
#
maxblock <- 7 # by choice
a <- 1
for(n in 2:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  for(k in 2^(0:floor(log2(length(nbit)))) )
    anbit <- bitwXor(anbit, c(anbit[-(1:k)], rep(0,k))) # ?bitwXor
  anbit[0:(length(anbit) - 1)] <- 1 - anbit[0:(length(anbit) - 1)]
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A233279 <- a
#
# http://oeis.org/A006068 # = A054429 (A233279).
#
maxblock <- 7 # by choice
a <- 1
for(n in 2:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  for(k in 2^(0:floor(log2(length(anbit)))) )
    anbit <- bitwXor(anbit, c(anbit[-(1:k)], rep(0,k))) # ?bitwXor
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A006068 <- a
#
maxblock <- 7 # by choice
a <- 1
for(n in 2:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  for(k in 2^(0:floor(log2(length(anbit)))) )
    anbit <- bitwXor(anbit, c(anbit[-(1:k)], rep(0,k))) # ?bitwXor
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A006068 <- a
#
# http://oeis.org/A180200 # = A054429 (A154435)
#
maxblock <- 7 # by choice
a <- 1
for(n in 2:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n))[1:tail(ones, n = 1)]
  anbit <- nbit
  anbit[(length(anbit) - 1)] <- 1 - anbit[(length(anbit) - 1)]
  anbit[0:(length(anbit) - 1)] <- 1 - anbit[0:(length(anbit) - 1)]
  for(k in 2^(0:floor(log2(length(anbit)))) )
    anbit <- bitwXor(anbit, c(anbit[-(1:k)], rep(0,k))) # ?bitwXor
  anbit[0:(length(anbit) - 1)] <- 1 - anbit[0:(length(anbit) - 1)]
}
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    a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
  }
A180200 <- a
#
# http://oeis.org/A154435 = A054429 (A180200) = A054429 (A006068 (A054429 (n)))
#
maxblock <- 7 # by choice
a <- 1
for(n in 2:2^maxblock){
  ones <- which(as.integer(intToBits(n)) == 1)
  nbit <- as.integer(intToBits(n)) [1:tail(ones, n = 1)]
  anbit <- nbit
  anbit[0:(length(anbit) - 1)] <- 1 - anbit[0:(length(anbit) - 1)]
  for(k in 2^(0:floor(log2(length(anbit)))) )
    anbit <- bitwXor(anbit, c(anbit[-(1:k)], rep(0,k))) # ?bitwXor
  anbit[0:(length(anbit) - 1)] <- 1 - anbit[0:(length(anbit) - 1)]
  a <- c(a, sum(anbit*2^(0:(length(anbit) - 1))))
}
A154435 <- a
#
#####

```